Report Description

The ADAREP database status report contains general database information followed by information about the status, allocation, and definition of each file in the database. Although the report is designed for printing from the SYSLST (BS2000), DDDRUCK (z/OS or z/VM), or SYS009 (VSE) dataset, the following figures show examples of the report output displayed at a terminal. The following pages display sections in the order they appear in the report; a description of each part is provided on the same page or the facing page.

This chapter covers the following topics:

- General Database Information

- File Information

- Checkpoint Information

General Database Information

The first section contains general information about the database and its physical layout:

```
********************
* DATA BASE REPORT *                                          yyyy-mm-dd hh:mm:ss
********************

DATA BASE NAME = EXAMPLE-DB
DATA BASE NUMBER = 99
DATE LOADED = yyyy-mm-dd
TIME LOADED = hh:mm:ss
SYSTEM FILES = 10
TRIGGER FILES = 6
MAXIMUM NUMBER OF FILES = 15
NUMBER OF FILES LOADED = 3
CURRENT LOG TAPE NUMBER = 48
RABNSIZE = 3
RECOVERY AID = NO
```

Additionally, if universal encoding support (UES) is enabled (UES=YES), the following encoding information is displayed:

```
UNIVERSAL ENCODING SUP. = YES
ALPHA FILE ENCODING = 37
WIDE FILE ENCODING = 4095
ALPHA ASCII ENCODING = 437
WIDE USER ENCODING = 950
```

If UES=NO, this information is suppressed.

Field	Explanation
DATABASE NAME	Name assigned to the database. See the ADADEF utility, DBNAME parameter.
DATABASE NUMBER	Number (ID) assigned to the database. See the ADADEF utility, DBIDENT parameter.
DATE LOADED	Date the database was initially defined.
TIME LOADED	Time of day when the database was initially defined.
SYSTEM FILES	File numbers of Adabas system files.
TRIGGER FILE	If the database contains a trigger file, this entry displays the file number. If no trigger file exists in the database, this line does not print.
MAXIMUM NUMBER OF FILES	Maximum number of files permitted for the database. See the ADADEF utility, MAXFILES parameter.
NUMBER OF FILES LOADED	Number of files currently in the database.
CURRENT LOG TAPE NUMBER	Number of the most recent data protection log for the database.
RABNSIZE	Length of the blocks in the database. RABNSIZE=3 indicates 24-bit blocks; RABNSIZE=4 indicates 31-bit blocks.
RECOVERY AID	Whether the Adabas Recovery Aid (ADARAI) is active for the database.
UNIVERSAL ENCODING SUPPORT	Whether universal encoding support (UES) is active for the database.
ALPHA FILE ENCODING	Current file encoding set for alphanumeric (A) format fields in the database. Must be EBCDIC-compatible.
WIDE FILE ENCODING	Current file encoding set for wide-character (W) format fields in the database.
ALPHA ASCII ENCODING	Current user encoding set for alphanumeric (A) format fields in the database. Must be ASCII-compatible.
WIDE USER ENCODING	Current user encoding set for wide-character (W) format fields in the database.

Space Allocated to Database Components

The "physical layout" table lists the space allocations for the major components of the database (Associator, Data Storage, and Work).

The "unused storage" table lists the unused space in the Associator and Data Storage areas. This space is not assigned to any file in the database.

```
P H Y S I C A L L A Y O U T

      DD- I DEV   I NMBR OF I NMBR OF EXTENTS IN BLK. I BLOCK I NMBR OF I
   NAMES I TYPE  I CYLS    I BLOCKS  FROM TO          I LNGTH I M-BYTE  I
 ----------I-------I---------I------------------------I-------I---------I
          I       I         I                         I       I         I
   ASSOR1 I 3380  I 100     I 28481    1       28481   I 2004  I 54      I
          I       I         I                         I       I         I
   DATAR1 I 3380  I 200     I 26991    1       26991   I 4820  I 124     I
          I       I         I                         I       I         I
   WORKR1 I 3380  I  40     I  5391    1        5391   I 4820  I 24      I
          I       I         I                         I       I         I
 -------------------------------------------------------------------------

   U N U S E D S T O R A G E

      DD- I DEV   I NMBR OF I NMBR OF EXTENTS IN BLK. I BLOCK  I NMBR OF I
   NAMES I TYPE  I CYLS    I BLOCKS  FROM TO          I LNGTH  I M-BYTE  I
 ----------I-------I---------I------------------------I-------I---------I
          I       I         I                         I       I         I
   ASSOR1 I 3380  I  98     I 28134    328      28461 I 2004   I 54      I
          I       I         I                         I       I         I
   DATAR1 I 3380  I 198     I 26811    131      26941 I 4820   I 124     I
```

The columns in these tables provide the following information:

Column	Explanation
DDNAMES	The job/task control name (without the "DD" prefix) that defines the Associator, Data Storage, or Work component of the database.
DEV TYPE	The physical device containing the Associator, Data Storage, or Work component.
NMBR OF CYLS	The DASD cylinders allocated to the Associator, Data Storage, and Work components. If less than one full cylinder has been allocated, "0" is shown in this column.
NMBR OF BLOCKS	The total number of blocks assigned to the Associator, Data Storage, or Work component.
EXTENTS IN BLK	The extents, listed by block range.
BLOCK LNGTH	The block size. The block size depends on the component and the device type.
NUMBER OF M-BYTES	The component storage size, in megabytes.

Contents of the Database: General File Status

The next section contains information on the status of each file in the database:

```
      ***********************************************
      *                                             *
      * CONTENTS OF  DATABASE 99 (EXAMPLE-DB)       *   yyyy-mm-dd hh:mm:ss
      *                                             *
      ***********************************************


       FILE       NAME     LOADED      TOP-ISN   MAX-ISN   EXTENTS   PADDING
                                                           NUA   D   A%   D%


         1    EMPLOYEES   1995-10-27  1107        2003     111   1   10   10
         2    VEHICLES    1995-10-27   773        2003     111   1   10   10
        10    CHECKPOINT  1995-10-27     3         667     111   1   10   10
```

The columns in this table provide the following information:

Column	Explanation
FILE	Adabas file number.
NAME	File name (see the ADALOD utility, NAME parameter).
LOADED	Date the file was loaded.
TOP-ISN	Highest ISN currently used in the file.
MAX-ISN	Highest ISN that can be assigned to a record in the file (see the ADALOD utility, MAXISN parameter).
EXTENTS	Number of logical extents currently assigned to the normal index (N), upper index (U), address converter (A), and Data Storage (D). A maximum of 5 logical extents may be allocated to an element. If an element has been assigned 5 extents, reorder the file (using ADAORD REORFILE or the ADAULD, ADADBS DELETE, ADALOD LOAD utility sequence) before the last extent fills, or Adabas will lock the file.
PADDING	The block padding factor defined for the Associator (A) and Data Storage (D) (see the ADALOD utility, ASSOPFAC and DATAPFAC parameters).

File Options

The next section lists the file options that are active for each file in the database:

```
         * * * * * * * * * * * * * * *
         * FILE OPTIONS *
         * * * * * * * * * * * * * * *

                      ADAM FILE
                      . COUPLED FILE
                      . . ISNREUSE
                      . . . DSREUSE
                      . . . . CIPHERED FILE
                      . . . . . EXPANDED FILE
                      . . . . . . USERISN
                      . . . . . . . NOACEXTENSION
                      . . . . . . . . MIXDSDEV
                      . . . . . . . . . PGMREFRESH
                      . . . . . . . . . . MULTICLIENT FILE
                      . . . . . . . . . . . INDEX COMPRESSED FILE NAME
                      . . . . . . . . . . .

  ------------------------------------------------------------------------------
    1  EMPLOYEES      . C I D . . . . . . . .
    2  VEHICLES       . C . D . . . . . . . .
   10  CHECKPOINT     . . . D . . . . . . . .
```

Options that are active for a file are indicated by the following codes in the row containing the file name:

Code	Explanation
A	ADAM file. The file was loaded with the ADAM option.
C	Coupling, ciphering, or index compression. The file is coupled to one or more files, and/or the file data is ciphered, and/or the file index is compressed.
D	Space reuse. Space which has been released within a block as a result of a record deletion may be used for a new record.
I	ISN reuse. ISNs of deleted records may be reassigned to new records.
M	MIXDSDEV active (multiple Data Storage device types) and/or a multiclient file.
N	File is defined with the NOACEXTENSION option.
P	PGMREFRESH is active.
U	File was loaded with the USERISN option.
X	File is a component of an expanded file.

File Space Allocations

The next section shows the space allocated for each file in the database:

```
     **************************
     * FILE SPACE ALLOCATIONS *
     **************************

     FILE     NAME      ALLOC.: NI    UI    AC    DATA/CYL
                        UNUSED:

     1      EMPLOYEES          100    30    03      80/0
     1                         24     17            31/0
     2      VEHICLES           10     20    03      30/0
     2                         03     02            12/0
     10     CHECKPOINT         10     01    01      20/0
     10                        05      0            11/0
```

Each file listed has two rows in the file space allocations table. The first row shows the number of blocks and cylinders *allocated* . The second row shows the number of blocks and cylinders currently *unused*.

The first two columns give the number and logical name of the file. The remaining columns provide the following information:

Column	The number of . . .
NI	blocks for the normal index.
UI	blocks for the upper index.
AC	blocks for the address converter.
DATA/CYL	blocks and cylinders for Data Storage.

Physical Layout of the Database

The next section lists all space allocations for the database in RABN sequence. RABNs allocated to the Associator are listed first, followed by RABNs allocated to Data Storage.

```
     PHYSICAL LAYOUT OF THE DATABASE
                                                         yyyy-mm-dd hh:mm:ss

     FROM       TO       NUMBER     DEV      TABLE   FILE    VOLSER
     BLK        BLK      OF BLKS    TYPE     TYPE            NUMBER

     106   -   119         14       3380     DSST    00      ADA001
     120   -   120         01       3380     AC      10      ADA001
     121   -   121         01       3380     UI      10      ADA001
     122   -   131         10       3380     NI      10      ADA001
     132   -   134         03       3380     AC      01      ADA001
     135   -   164         30       3380     UI      01      ADA001
     165   -   264        100       3380     NI      01      ADA001
     265   -   267         03       3380     AC      02      ADA001
     268   -   287         20       3380     UI      02      ADA001
     288   -   327         10       3380     NI      02      ADA001
     328   - 28481      28154       3380     UNUSED  00      ADA001
     01    -    20         20       3380     DS      10      ADA002
     21    -   100         80       3380     DS      01      ADA002
     101   -   130         30       3380     DS      02      ADA002
     131   - 26991      26861       3380     UNUSED  00      ADA002
```

Note:
Normally, a gap in the physical layout table is accompanied by an error message pointing to the gap. However, this is not the case for the physical layout of a file save. Since the file save contains only the FCBs of the saved files, there will be gaps in the physical layout table and these are reported as 'unknown' ranges.

The columns in this table provide the following information:

Column	Explanation
FROM BLK	The RABN of the first block in the logical extent.
TO BLK	The RABN of the last block in the logical extent.
NUMBER OF BLKS	The number of blocks contained within the extent.
DEV TYPE	The physical device type.
TABLE TYPE	The element for which the allocation was made: AC — address converter NI — normal index UI — upper index DS — Data Storage DSF — Delta Save logging area DSST — Data Storage space table UNUSED — available space
FILE	The file for which the allocation was made. Zero indicates that the extent is not related to a particular file.
VOLSER NUMBER	The serial number of the volume on which the extent is contained. This is shown for Data Storage only if the Data Storage datasets are present in the JCL.

File Information

General Characteristics

Detailed information on each file in the database is provided after the database information. This information can be limited to certain files or omitted altogether. The first part of this section displays information about the file's characteristics:

```
     ************
     * FILE 01  *   EMPLOYEES                                 yyyy-mm-dd hh:mm:ss
     ************


     TOP-ISN              = 1,107              HIGHEST INDEX LEVEL   =   3
     MAX-ISN EXPECTED     = 2,003              PADDING FACTOR ASSO   =  10%
     RECORDS LOADED       = 1,107              PADDING FACTOR DATA   =  10%
     MIN-ISN              = 1                  LENGTH OF CLIENT NR   =   0
     NUMBER OF UPDATES    = 0                  ISNSIZE               =   3

     MAX COMP REC LEN     = 4,734              DATE LOADED           = 1995-01-29
     BLK/ADD DS EXT       = 0                  TIME LOADED           = 13:30:14
     BLK/ADD UI EXT       = 0                  DATE OF LAST UPDATE   = 1997-01-15
     BLK/ADD NI EXT       = 0                  TIME OF LAST UPDATE   = 23:45:10

     FILE ALPHA CODE      = 500
     FILE WIDE CODE       = 4,095
     USER WIDE CODE       = DB  DEFAULT
```

The following information is provided:

Field	Explanation
TOP-ISN	Highest ISN currently used in the file.
MAX-ISN EXPECTED	Highest ISN planned for the file. See the ADALOD utility, MAXISN parameter.
RECORDS LOADED	Number of records currently contained in the file.
MINIMUM ISN	Lowest ISN that can be assigned to a record in the file. See the ADALOD utility, MINISN parameter.
NUMBER OF UPDATES	Number of updates that have been applied to the file after it was loaded.
MAX COMP REC LENGTH	Maximum compressed record length permitted for the file. See the ADALOD utility, MAXRECL parameter.
BLK/ADD DS EXT	Maximum number of blocks which may be allocated for each Data Storage secondary extent. See the ADALOD utility, MAXDS parameter.
BLK/ADD UI EXT	Maximum number of blocks which may be allocated for each secondary upper index extent. See the ADALOD utility, MAXUI parameter.
BLK/ADD NI EXT	Maximum number of blocks which may be allocated for each secondary normal index extent. See the ADALOD utility, MAXNI parameter.
FILE ALPHA CODE	Current file encoding set for alphanumeric fields in the file. This information is not displayed if UES=NO.
FILE WIDE CODE	Current file encoding set for wide-character fields in the file. This information is not displayed if UES=NO.

Field	Explanation
USER WIDE CODE	Current user encoding set for wide-character fields in the file. This information is not displayed if UES=NO.
HIGHEST INDEX LEVEL	Highest index level currently active for the file.
PADDING FACTOR ASSO	Associator padding factor. See the ADALOD utility, ASSOPFAC parameter or the ARDORD utility, REORASSO and REORFASSO functions.
PADDING FACTOR DATA	Data Storage padding factor. See the ADALOD utility, DATAPFAC parameter or the ADAORD utility, REORDATA and REORFDATA functions.
LENGTH OF CLIENT NR	Length of the owner ID for a multiclient file.
ISNSIZE	Whether the file contains 3-byte or 4-byte ISNs.
DATE LOADED	Date the file was loaded.
TIME LOADED	Time the file was loaded.
DATE OF LAST UPDATE	Date the file was last changed.
TIME OF LAST UPDATE	Time the file was last changed.

Options

File-option settings for the file are displayed next:

```
        ADAM FILE             NO
        CIPHERED FILE         NO
        ISN REUSAGE           NO
        SPACE REUSAGE         YES
        COUPLED FILES         NONE
        EXPANDED FILE         NO
        USERISN               NO
        NOACEXTENSION         NO
        MIXDSDEV              NO
        PGMREFRESH            NO
        MULTICLIENT FILE      NO
        PRIVILEGED USAGE      NO
        ONLINE INVERT         NONE
        INDEX COMPRESSED      NO


        ADABAS VERSION NEEDED FOR THIS FILE: V71 OR LATER
```

Field	Indicates . . .
ADAM FILE	whether the file was loaded with the ADAM option.
CIPHERED FILE	whether the file was loaded with the cipher option.
ISN REUSAGE	whether the file ISNs can be reused.
SPACE REUSAGE	whether the file Data Storage space can be reused.
COUPLED FILES	the file(s) to which this file is physically coupled.
EXPANDED FILE	whether the file is part of an expanded file; if so, the number of the expanded file is displayed.
USERISN	whether the file was loaded with the USERISN option.
NOACEXTENSION	whether the file permits increasing the MAXISN setting.
MIXDSDEV	whether the file Data Storage extents can be on different device types.
PGMREFRESH	whether the file can be refreshed using the E1 command.
MULTICLIENT FILE	whether the file can contain records belonging to multiple owners/owner IDs.
PRIVILEGED USAGE	whether the file was locked by the nucleus for privileged usage; if so, only Adabas utilities are allowed to access the file.
ONLINE INVERT	the descriptor(s) being inverted online.
INDEX COMPRESSED	whether the file index is compressed.

Delta Save Change Flags

If the Delta Save Facility is installed on the database and delta save logging is enabled, ADAREP shows the delta save change flags for each file:

```
   DELTA SAVE CHANGE FLAGS:
     SAVE ENTIRE INDEX     = [YES | NO]
     SAVE ENTIRE ADDR CONV = [YES | NO]
     SAVE ENTIRE DATA STOR = [YES | NO]
     TOTAL CHANGES BY UTILITIES = nnn BLOCKS
```

Each flag indicates whether all of the index, address converter, or Data Storage, respectively, of the file have been changed by a utility and will be saved entirely in the next delta save operation.

The "total changes by utilities" include the blocks within extents that will be saved entirely as well as the blocks changed by ADALOD UPDATE executions.

Space Allocation

The next section lists the space allocations for the file:

```
      LIST I DEV BLOCK  I SPACE      ALLOC. I   FROM     TO    I UNUSED SPACE     I
      TYPE I TYPE LNGTH I BLOCKS      CYL    I   RABN    RABN   I BLOCKS CYL       I
           I            I                    I                  I                  I
      -----I------------I--------------------I------------------I------------------I
           I            I                    I                  I                  I
      DSST I 3380 2004 I     1       0      I   106     106    I                  I
        AC I 3380 2004 I     3       0      I   132     134    I                  I
        UI I 3380 2004 I    30       0      I   135     164    I    17 0          I
        NI I 3380 2004 I   100       0      I   165     264    I    24 0          I
           I            I                    I                  I                  I
        DS I 3380 4820 I    80       0      I    21     100    I    31 0          I
           I            I                    I                  I                  I
      -------------------------------------------------------------------------
```

The space allocations table provides the following information:

Column	Explanation
LIST TYPE	The database component: AC — address converter NI — normal index UI — upper index DS — Data Storage DSF — File-specific delta save logging area DSST — Data Storage space table UNUSED — Available space
DEV TYPE	Physical device containing the component.
BLOCK LNGTH	Block length depends on the component and device type.
SPACE ALLOC.	Total number of blocks and cylinders allocated to the component; "0" indicates less than one full cylinder.
FROM RABN	RABN of the first block in the logical extent.
TO RABN	RABN of the last block in the logical extent.
UNUSED SPACE	Number of allocated blocks and cylinders but currently unused; "0" indicates less than one full cylinder.

Field Definition Table

The field definition table (FDT) is displayed next. This information can be omitted.

```
     FIELD DESCRIPTION TABLE
```

LEVEL	NAME	LENGTH	FORMAT	OPTIONS	PARENT OF
1	AA	8	A	DE,UQ	
1	AB				
2	AC	20	A	NU	
2	AE	20	A	DE	SUPERDE,PHONDE
2	AD	20	A	NU	
1	AF	1	A	FI	
1	AG	1	A	FI	
1	AH	6	U	DE	
1	A2				
1	AO	6	A	DE	SUBDE,SUPERDE
1	AQ			PE	
2	AR	3	A	NU	SUPERDE
2	AS	5	P	NU	SUPERDE
1	A3				
2	AU	2	U		SUPERDE
2	AV	2	U	NU	SUPERDE

Field	Explanation
LEVEL	Field level.
NAME	Field name.
LENGTH	Field length, in bytes.
FORMAT	Field's data type: A — alphanumeric B — binary F — fixed point P — packed decimal G — floating point U — unpacked decimal W — wide-character
OPTIONS	DE — Descriptor FI — Fixed storage LA — Long alphanumeric MU — Multiple-value field NC — Null/not counted Null not allowed NU — Null value suppression NV — Not converted (alpha and wide-character fields) PE — A periodic group. The fields composing the periodic group are those which follow and have a higher level number. UQ — Unique descriptor XI — Index (occurrence) number excluded from UQ in PE
PARENT OF	Shows whether this field is a parent field for a collation descriptor, sub/superfield, sub/superdescriptor, hyperdescriptor, or phonetic descriptor.

Special Descriptors

The next section displays information about any special descriptors (collation descriptors, subdescriptors, subfields, superdescriptors, superfields, phonetic descriptors, and hyperdescriptors) in the file:

```
    SPECIAL DESCRIPTOR TABLE
          I      I        I         I                         I                I
     TYPE I NAME I LENGTH I FORMAT  I            OPTIONS I        STRUCTURE I
          I      I        I         I                         I                I
    -------I------I--------I--------I-----------------------I----------------I
          I      I        I         I                         I                I
    SUPER I  H1 I      4 I      B I              DE,NU I    AU ( 1 - 2) I
          I      I        I         I                         I    AV ( 1 - 2) I
      SUB I  S1 I      4 I      A I                 DE I    AO ( 1 - 4) I
    SUPER I  S2 I     26 I      A I                 DE I    AO ( 1 - 6) I
    SUPER I  S3 I     12 I      A I           DE,NU,PE I    AE ( 1 - 20) I
          I      I        I         I                         I    AR ( 1 - 3) I
          I      I        I         I                         I    AS ( 1 - 9) I
          I      I        I         I                         I                I
    PHON  I  PH I        I         I                         I  PH = PHON(AE) I
          I      I        I         I                         I                I
      COL I  Y1 I     20 I      W I                 DE I       CDX 8,PA I
      COL I  Y2 I     12 I      A I           DE,NU,PE I       CDX 1,AR I
          I      I        I         I                         I                I
          I      I        I         I                         I                I
    --------------------------------------------------------------------------
```

Along with the name, length, and format of each special descriptor, this table provides the following information:

Column	Explanation	
TYPE	SUB	Subfield/subdescriptor
	SUPER	Superfield/superdescriptor
	PHON	Phonetic descriptor
	HYPER	Hyperdescriptor
	COL	Collation descriptor
OPTIONS	DE	Descriptor field
	FI	Fixed point
	LA	Long alphanumeric
	MU	Multiple-value field
	NC	Null not counted (SQL null representation)
	NN	Null not allowed
	NU	Null value suppression
	NV	Not converted (alpha and wide-character fields)
	PE	Periodic group
	UQ	Unique descriptor
	XI	Index (occurrence) number excluded from UQ in PE
STRUCTURE	The component fields and field bytes of the sub-, super-, or hyperdescriptor. Phonetic descriptors show the equivalent alphanumeric elementary fields. Collation descriptors show the associated collation descriptor user exit and the name of the parent field.	

Checkpoint Information

Checkpoint information is also provided if the CPLIST or CPEXLIST parameters are specified:

```
     ********************
     * CHECK-POINT-LIST *                              yyyy-mm-dd hh:mm:ss
     ********************


     CP        CP        DATE        TIME      PLOG    BLOCK    JOBNAME
     NAME      TYPE                            NR      NR
               USER TYPE                       VOLSER NR....

     SYNP      30        1995-06-03  14:07:38  47      1        DUAL GA0TB1
               LOAD                            VOLSER = WRK001
     SYNC      01  ET    1995-06-03  14:08:16  48      2        DUAL GANUC70A
               SESSION OPEN IGNDIB=N FORCE=N
     SYNP      1C  UTI   1995-06-03  14:08:36  48      3        DUAL GA0TB1
               RESTRUCT
```

The columns in this table provide the following information:

Column	Explanation
CP-NAME	The checkpoint identifier. In the case of a user non-synchronized checkpoint, this is the checkpoint identifier supplied by the user program. Checkpoint names starting with "SYN" are reserved for the Adabas nucleus and utilities:
	SYNC A synchronized checkpoint made during nucleus initialization, including the status of the ADARUN IGNDIB and FORCE parameters.
	SYNF A checkpoint taken by a user program or utility that requires exclusive (EXF) control of one or more files.
	SYNP A checkpoint from a utility that requires privileged control. Such a utility can perform updating without using the Adabas nucleus.
	SYNS A checkpoint from Adabas Online System (SYSAOS) or ADADBS with three exceptions from the nucleus. The function identified by this checkpoint is implemented without user intervention during regeneration.
	Exceptions include a second SYNS 5B recorded at the end of a nucleus session; SYNS 60 recorded at an interval specified by the ADARUN INTNAS parameter; and SYNS 61 recorded when more space is allocated for a file.
	SYNV Indicates that a volume ID changed during sequential write to a dataset is being closed.
	SYNX A checkpoint from a utility requiring exclusive control (EXU) of one or more files.
	SYN1 A checkpoint made at the beginning of online ADASAV execution (SAVE database function).
	SYN2 A checkpoint made at the end of online ADASAV execution (SAVE database function).
	SYN4 A checkpoint made at the beginning of online ADASAV execution (SAVE files operation).
	SYN5 A checkpoint made at the end of online ADASAV execution (SAVE files operation).
CP TYPE	The checkpoint number. See the following table of checkpoints for the possible checkpoint numbers.

Column	Explanation
USER TYPE	The Adabas user type that set the checkpoint. The user types are: ET ET user EXF exclusive-file-control user or utility (privileged user) EXU exclusive-file-update user or utility UTI utility-update-control utility (privileged user) UTS Online ADASAV SAVE file (privileged user)
DATE TIME	The date and time the checkpoint was taken.
PLOG NR.	The number of the data protection log in use when the checkpoint was written to the checkpoint file.
BLOCK NR.	The block number of the data protection log in which the checkpoint was written.
VOLSER-NUMBER	The volume serial number of the sequential protection (DD/SIBA) log. The volume serial number is "DUAL" if dual logging is used and "MULTI" if multiple logging is used.
JOBNAME	The name of the job that created the checkpoint.

The following table describes the checkpoints written by the Adabas nucleus or utilities:

Type	Name	Originator	Description
01	SYNC	ADANUC	Written by nucleus at start of nucleus session.
01	SYNF	User/Util.	User/utility session OPEN with files used in EXF (exclusive use) mode.
01	SYNX	EXU user	EXU user open.
02	SYNV	ADANUC	VOLSER entry. Written at volume switch on DD/SIBA and at the end of the session if sequential logging is used.
03	SYNF	User/Util.	Close checkpoint for an EXF user.
03	SYNX	EXU	Close checkpoint for an EXU user.
05	SYNP	ADASAV	SAVE file(s)-start of operation
06	SYNP	ADASAV	SAVE database-start of operation
07	SYNP	ADASAV	RESTORE file(s)-end of operation
08	SYNP	ADASAV	RESTPLOG-end of operation
09	SYNV	ADASAV	SAVE file(s), VOLSER entry. Written at volume change on DD/SAVE and at SAVE-operation end.
0A	SYNV	ADASAV	SAVE database, VOLSER entry. Written at volume switch on DD/SAVE and at SAVE-operation end.

Type	Name	Originator	Description
0B	SYNP	ADASAV	SAVE DELTA-end of operation
0C	SYNP	ADASAV	RESTORE DELTA-end of operation
0D	SYNP	ADASAV	MERGE-end of operation
0E	SYNV	ADASAV	SAVE DELTA, VOLSER entry
0F	SYNV	ADASAV	MERGE, VOLSER entry
10	SYNP	ADAINV	COUPLE files
11	SYNP	ADAINV	INVERT field(s)
15	SYNP	ADAORD	REORDER Associator database
16	SYNP	ADAORD	REORDER Data Storage database
17	SYNP	ADAORD	REORDER database
18	SYNP	ADAORD	REORDER Associator file
19	SYNP	ADAORD	REORDER Data Storage file
1A	SYNP	ADAORD	REORDER file
1B	SYNP	ADAORD	STORE
1C	SYNP	ADAORD	RESTRUCTURE
1D	SYNP	ADADEF	DEFINE NEWWORK
1E	SYNP	ADADEF	MODIFY default character encodings
22	SYNX	ADARES	REGENERATE file
23	SYNX	ADARES	BACKOUT file
24	SYNX	ADARES	REGENERATE all; CPEXLIST lists excluded files
25	SYNX	ADARES	BACKOUT all; CPEXLIST lists excluded files
26	SYNP	ADARES	REPAIR Data Storage
27	SYNV	ADARES	COPY sequential protection log
28	SYNP	ADARES	PLCOPY function successfully completed
28	SYNV	ADARES	PLCOPY dual or multiple protection log
29	SYNV	ADARES	CLCOPY dual or multiple command log
2A	SYNP	ADARES	PLCOPY MERGE function successfully completed
2A	SYNV	ADARES	PLCOPY MERGE dual or multiple protection log
2B	SYNP	ADARES	CLOG MERGE function successfully completed
2B	SYNV	ADARES	CLOG MERGE dual or multiple command log
30	SYNP	ADALOD	LOAD file
31	SYNP	ADALOD	Mass update
35	SYNX	ADAULD	Unload file

Type	Name	Originator	Description
3F	SYNP	ADAZAP	Successful VERIFY - REPLACE
40	SYNS	SYSAOS	Add extent
41	SYNS	SYSAOS	CHANGE default field length
42	SYNS	SYSAOS	DECREASE database size
44	SYNS	SYSAOS	Delete file
45	SYNS	SYSAOS	INCREASE database size
47	SYNS	SYSAOS	RECOVER space
48	SYNS	SYSAOS	Refresh file
49	SYNS	SYSAOS	Remove component file from expanded-file chain
4A	SYNS	SYSAOS	Release descriptor
4B	SYNS	SYSAOS	RENAME file
4C	SYNS	SYSAOS	RENUMBER file
4D	SYNS	SYSAOS	RESET DIB
4E	SYNS	SYSAOS	Reuse ISN
4F	SYNS	SYSAOS	Reuse Data Storage
50	SYNS	SYSAOS	UNCOUPLE files
51	SYNS	SYSAOS	ALLOCATE file extent
52	SYNS	SYSAOS	DEALLOCATE file extent
53	SYNS	SYSAOS	Delete checkpoint
54	SYNS	SYSAOS	Set user priority
55	SYNS	SYSAOS	Modify FCB
57	SYNS	SYSAOS	DEFINE file
58	SYNS	SYSAOS	Write FDT
59	SYNS	SYSAOS	DEFINE new field
5B	SYNS	ADADBS	Write refreshed statistics (some or all per user request)
5B	SYNS	ADANUC	Write (all) statistics at end of nucleus session
5B	SYNS	ADARES	Write refreshed statistics (command, file, and thread usage; DRES and DSTAT)
5C	SYNS	SYSAOS	CHANGE default field format
5D	SYNS	SYSAOS	Change file encoding
60	SYNS	ADANUC	Nucleus statistic checkpoint
61	SYNS	ADANUC	Allocate file space
64	SYNS	ADASCR	Protect files

Type	Name	Originator	Description
65	SYNS	ADASCR	Protect fields
66	SYNS	SYSAOS	Link component file into expanded-file chain
68	SYNS	SYSAOS	Set USERISN on/off
69	SYNS	SYSAOS	Set MIXDSDEV on/off
6A	SYNS	SYSAOS	Install Delta Save DLOG area
6B	SYNS	SYSAOS	Change Delta Save DLOG area
6C	SYNS	SYSAOS	Remove Delta Save DLOG area
6F	SYNS	SYSAOS	Online process initiated
70	SYNS	SYSAOS	Online invert process
71	SYNS	SYSAOS	Online reorder process
73	SYNC	ADANUC	Nucleus (nuclei) successfully quiesced.
74	SYNC	ADANUC	Nucleus (nuclei) have resumed normal processing.